

UKSS Newsletter Issue 3

Summer 2020



This is our first Newsletter in unusual times. A world-wide pandemic places the need for systemic thinking in sharp focus. Let us know your experiences from life under lock-down.

As always, the Management Committee would like to hear feedback from you, our membership:

ukssnewsletter@gmail.com

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MEMBERSHIP NEWS & EVENTS

SCiO events – open to all and free of charge

SCiO Virtual Open Meeting - 14 September 2020 18:30–20:30

Virtual Open Meeting, a series of presentations of general interest to Systems & Complexity in Organisation's members and others.

About this Event

SCiO organises Open Meetings to provide opportunities for practitioners to learn and develop new practice, to build relationships, networks hear about skills, tools, practice and experiences. This virtual session will be held on Zoom, the details of which will be confirmed nearer the time.

SCiO Virtual Networking Event – 28 September 2020 18:30–20:30

Hosted by SCiO director Benjamin Taylor, with deep experience of online facilitation from five to over a hundred people, this will combine some initial small group work, Open Space-style discussions, and completely open opportunities to mingle as individuals.

Please note that you will need to attend using a desktop computer (not a tablet or phone) to get the best experience.

You will be able to keep up to date with these and future events through the SCiO website: <http://www.systemspractice.org/>

Our experiences of the current crisis from a holistic perspective

Ian Roderick, The Schumacher Institute

It must a great temptation for many futurists across the world to say “we told you so”. The likelihood of a major pandemic soon was always one – a certainty - the parameters and the timing were the unknowns. But there is no value in carping about what ought to have been done. The job now is to think ahead and become better prepared than ever before.

I’m reminded of the work of Ackoff and Emery (1972), which describes three types of system: reactive, responsive and purposeful. Before the pandemic appeared the health system was purposeful, it had multiple goals and different ways to achieve them and it was setting the agenda – co-producing goals with the environment in which it sits. That changed, the agenda was suddenly being set from external sources, there were still multiple goals and multiple ways to achieve them but systems were now just responsive. When the magnitude of the pandemic became clear the health system entered crisis and systems became simply reactive where systems can do only one structured activity in a structurally well-defined, single goal environment – the NHS and care staff focused on just saving lives.

As the pandemic abates (we hope there is no second wave), the system returns from its reactive phase back to purposeful where new goals and ideals are likely to emerge from the learning experiences of the crisis.

This is, of course, a great simplification but it shows how we ought to think of systems in their potentially different contexts. We are likely to get fixated on systems in a ‘business as usual’ context and forget that an external shock may shift it into a crisis mode where behaviours are determined by local, short-term needs of survival. This type of systems thinking for resilience means stress testing and sensitivity analysis.

One of the major themes of work in The Schumacher Institute is called Prepare for Change. It involves horizon scanning and scenario development looking at the major factors that will affect the world – the global megatrends. And, yes, we did run sessions on pandemics – and diseases in animals and crop diseases. Out of this has come the idea of stress testing plans (the Bristol One City plan running out to 2050 is our focus).

An early example of stress testing comes from the aircraft industry following the Comet disasters in the early 1950s caused by metal fatigue. This leads to what engineers think: “Thorough testing to determine the stability of a given system or entity. It involves testing beyond normal operational capacity, often to a breaking point, to observe the results”. This

is entirely appropriate for safety-critical hard systems that can be reproduced and even for softer things like a cardiac stress test, although perhaps not to breaking point.

Since the financial crisis of 2008, stress testing financial institutions has become common (how well, remains to be seen). Banks are required to stress test their systems to see how they would respond to a variety of risks and scenarios. It is a bit like war-gaming and the need for a good systems model is obvious.

When it comes to long term plans for a city we have moved a long way from an engineering approach. The system is a super-wicked mess existing in a future probability space under the influence of a multitude of external, global scale factors. The approach we use is threefold:

- to determine what are the underlying assumptions in the plan and are they robust against global megatrends (sensitivity analysis)
- to determine modes of failure - how might the systems fail (reverse stress tests)
- how do the combination and interaction of megatrends produce scenarios in which we can evaluate the fragility of the plan (multi-factor, scenario analysis)

The outcome will not be a certainty about what to do, it may be a planning process that better understands its limits than before. It may highlight weakness and it will expose the hexlemma inherent in risk assessment: the trade-offs among resilience, sustainability, economic efficiency, safety, reliability and ethics.

Whatever the outcome from the present pandemic there is one certainty, the next one will be different. We need to prepare.

Ackoff, R and Emery, F. (1972) *On Purposeful Systems*, Tavistock London

Conference News

What strange times we live! Thank the Lord for social media and teaching technologies. My colleagues and I continue to work through the C19 pandemic as we support BSc and MSc students complete their semester two studies. It has been a difficult period for us, no question, however, we have learnt new virtual classroom teaching skills through using software such as Bongo and Panopto, and getting to grips with the Department's new MS Teams package. Our training covers the delivery of virtual classrooms; we just prefer face-to-face contact with students as it's something we know they highly value. I am enjoying it, though, and will continue to use the virtual classrooms in the future. I also feel such technology more robustly delivers flexible pedagogies as called for by commentators such as Matheson et al. (2017), Gordon (2014) and Ryan et al. (2013).

It was a shame the Management Committee had to cancel this year's conference at Lancaster University, but we can all look forward to July 2021. On-site accommodation will be available should you need it, and there will be a conference dinner. It gives us all a little extra time I guess to brush-up our abstracts, proceedings and possibly a paper for the Systemist. On the conference theme, there is a spare copy of the Proceedings from Bournemouth last year should anyone be interested. There's a slight mark on it – if you would like it, I am happy to let it go free of charge and just reimburse me for the post and packaging, please, which is about £5. So, until we next speak again, stay safe and keep up the Systems projects and writings fellow 'Systemists'.

Gary Evans, UKSS Conference Chair and Director

UK Systems Society International Conference 2021 – Monday 21 June 2021

Thinking, Collaborating and Connecting even during a Pandemic

Many of us have used the Ketso toolkit, either in our work or at UKSS conferences in the past. This is a visual toolkit that displays information in an effective, non-linear way. It is a way for people to collaborate to share and capture their ideas and perspectives holistically. Everyone in a group is able to participate, not just those with the loudest voices. It can be used anywhere, anytime without needing a computer, special software or even a power supply. Ketso is complete, flexible and easy to use – people can adapt it for their own purposes. A recent example came when inducting a new cohort of doctoral students at our University. There were about 80 students, assembled in a hall. They were drawn from all the different faculties and, of course, their research proposals were all individually unique. Using Ketso, they were guided to explore the differences and the commonalities in their plans, to share and discuss their expectations from a doctoral programme, and to tease out the challenges and requirements they faced. In this way, their engagement with the Induction process was developed and they were able to take away a great deal more from the session as a result. They had also had an opportunity to network, break the ice and have some fun.

Ketso is made from sustainable materials, responsibly sourced, that can be used over and over again. Through 25 years of research, the creators' aim was to produce a toolset to promote and support inclusive dialogue among people (Founder Joanne Tippett is a former board member of the UKSS).



In the past ten years, a network of users have contributed to a bank of case studies illustrating the power and versatility of the toolkit. These are illustrated at <https://ketso.com/case-studies/>. Feedback from users around the world led the Ketso team to create different packages to suit different needs. A workshop toolkit suits an exercise for 24 participants to collaborate, but there are choices to support smaller groups, and 'My Ketso' provides a personal kit for individual or 1-to-1 sessions. Schools and parents looking for ways to support learning at home can find these a helpful resource.

A timely addition to the range is 'Ketso Connect' - a compact version designed to support multiple users working together but in different places. In the context of the pandemic, when so many teams are working from home, support for effective dialogue and decision-making at a distance is badly needed. Ketso Connect is also a useful tool to support blended learning. When a student is attending to an on-line lecture, note taking becomes a challenge. Typing into a text editor while already attending to a screen is almost impossible, while pencil and paper notes are static and likely to require further editing later.

The visual tools in Ketso Connect are easy to use and annotate in real time. Material can be moved around and re-organised with ease and the results can be photographed or scanned. Rather than distracting the listener, using the toolkit can enhance engagement with the content presented.



Group work is an important feature of the educational experience, and might be missed during a remote learning situation. Using Ketso Connect, tutors can still incorporate group working into their on-line learning programmes, supporting interactions among students at remote locations. Ketso elements and visual language also provide powerful mind-mapping and planning tools for structuring written work or practical assignments, thus supporting a holistic learning process. The kits can also be used equally well for group or individual work. A colleague has recently acquired a set to help her plan the structure of a book she has been commissioned to write.

There has never been a time when it was more important for us all to engage in effective dialogue and to address the need for sustainable resources. More important still is the need to provide our children and young people with an effective and holistic learning experience. Ketso toolkits are a proven means to help promote these aims.

<https://ketso.com/>

Calls for papers for Systemist

The Coronavirus Covina-19 is occupying the thoughts of millions across the globe. In the U.K. we are trying to manage its spread (1) to reduce the potential suffering of the population and (2) to reduce the possibility of NHS being overwhelmed. There are two aspects of concern with the latter, the first is bed availability and second the number of health professionals that are or will be available should the virus reach expected level of infection. Sensibly the Government has plans but it is not clear which of 1 & 2 above has priority.

In 2017 the UKSS conference theme was 'can systemic thinking reshape the health service?' We learnt a great deal from the two excellent keynote speakers but, with hindsight, were they planning for such an eventuality as we face now? At the time many of us felt that the NHS 'system' needed to be revisited as, in many respects, the original model put into place more than 70 years ago still provides the backbone of the service.

As Systems theorist and practitioners what can we offer? Our area of interest range from mathematical modelling, Cybernetics through to Soft Systems. What can we offer? Whilst we can recognise that a health service modelled on worst case scenarios would be unaffordable and wasteful the present position is the NHS may not be able to cope with such an outbreak as we now face. Moreover, despite the overall excellence of the service can Systems thinking provide valuable guidance for its future given the changing demands and the effects of a growing national and world population and ease of travel. What suggestions has the Systems community to offer? This is an important question if we are to be anything more than an interest group.

To this end we would like to encourage your thoughts and ideas on what Systems thinking has to offer the NHS.

For details of the Systemist journal and how to submit your paper, please see below.



Call for Papers

The Systemist is a peer-reviewed, open access journal published annually on-line under a Creative Commons licence (CC-BY). There are no publication fees. Hard copies of the journal are available by payment on request. Accepted articles are eligible for advance publication.

SUBMISSIONS ARE INVITED OF ORIGINAL ARTICLES, WHICH MAY BE FULL RESEARCH PAPERS, CASE STUDIES FROM PRACTICE, SUBSTANTIAL REVIEWS OF RELEVANT LITERATURE, OPINION AND DISCUSSION PIECES OR OTHER TYPES OF SUBMISSION BY AGREEMENT OF THE EDITOR.

Topics could include, but are not limited to:

- problem structuring methods
- modelling approaches
- soft systems analysis
- second order cybernetics
- critical systemic thinking
- work systems
- systemic approaches to management of projects
- environmental and social sustainability
- systemic governance of technologies
- socio-technical principles and practices.

Please submit to the Editor by email to <<mailto:editor@systemist.org.uk>> including a covering letter that explains the type of material submitted and its relevance to the Systems agenda.